

**Notice of Allowability**

Application No.

10/659,889

Examiner

Anthony Ojini

Applicant(s)

ROBERTS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 09/11/03.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Konrad H. Kaeding on April 2, 2004.

The application has been amended as follows:

**In claims 1,4,7**, line 13, change the term "comprising" to **----consisting of : ----**.

The following is an examiner's statement of reasons for allowance: the specific limitations of " a polishing pad having a hydrophilic polishing layer having a polishing surface consisting essentially of a polishing material having a density greater than **0.5 g/cm**; a critical surface tension greater than or equal to **34 milliNewtons** per meter; tension modulus of **0.02 to 5 GigaPascals** a ratio of tensile modules at **30 C** to tensile modulus at **60 C of 1.0 to 2.5**; a hardness of **25 to 80 Shore D**; a yield stress of **300-6000 psi**; a tensile strength of **1000 to 15,000 psi**; an elongation to break less than or equal to **500%**, said polishing material comprising a polymer pad material selected from the group consisting of : **a urethane, a carbonate, an amide, ester, acrylate, methacrylate, acrylate, methacrylate, sulfone**" in the combination as claimed in **claims 1,4,7**, are not anticipated or made obvious by the prior art in the examiner's opinion. **For example**, Cook et al. (5,489,233) disclose a method of polishing a substrate, comprising: creating a plurality of micro-recesses upon a thermoplastic

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hydrophilic polishing pad having a random surface topography which is created by moving an abrasive medium against and relative to the polishing surface. **However**, the art of record considered alone or in combination, fails to provide or suggest "a polishing pad having a hydrophilic polishing layer having a polishing surface consisting essentially of a polishing material having a density greater than **0.5 g/cm**; a critical surface tension greater than or equal to **34 milliNewtons per meter**; tension modulus of **0.02 to 5 GigaPascals** a ratio of tensile modules at **30 C** to tensile modulus at **60 C** of **1.0 to 2.5**; a hardness of **25 to 80 Shore D**; a yield stress of **300-6000 psi**; a tensile strength of **1000 to 15,000 psi**; an elongation to break less than or equal to **500%**, said polishing material comprising a polymer pad material selected from the group comprising: a **urethane, a carbonate, an amide, ester, acrylate, methacrylate, acrylate, methacrylate, sulfone**".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ojini whose telephone number is 703 305 3768. The examiner can normally be reached on 7 to 4 Tuesday-Friday with every other Monday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 703 308 2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Joseph J. Hail, III".

Joseph J. Hail, III  
Supervisory Patent Examiner  
Technology Center 3700

AO  
March 24, 2004